AMENDMENTS TO THE CLAIMS

Kindly enter the following amendment to the claims:

1-6 (canceled)

7. (previously amended) An eddy current sensor for measuring characteristics of a nearby, moving, electrically conductive object with an intervening barrier of material between the sensors and the object, the sensor comprising:

a uniaxial permanent magnet for generating a stationary magnetic field, the magnet being mounted proximate and external to the barrier and sized and shaped so that the stationary magnetic field penetrates through the barrier and can be intersected by the moving conductive object; and

a coil wound around the magnet so that a signal voltage can be produced on the coil in response to a variable magnetic field caused by eddy currents in the conductive object as the conductive object passes through the stationary magnetic field;

wherein the magnet includes a first dimension along a longitudinal central major axis generally parallel to the proximate surface of the barrier, a second dimension along a second minor axis, and third dimension along a third minor axis, the first dimension being the greatest, and wherein the magnet is magnetized along one of the second minor axis and the third minor axis, whereby the sensor is monodirectional.

8. (previously amended) The eddy current sensor as recited in claim 7, wherein the magnet is generally rectangular in cross-section.

9-12 (cancelled)

13. (previously amended) An eddy current sensor for measuring characteristics of moving turbine blades of a jet engine having a casing, through which the sensor measures the blade characteristics, the sensor comprising:

a uniaxial permanent magnet for generating a stationary magnetic field, the magnet being mounted proximate and external to the casing and sized so that the stationary magnetic field penetrates through the casing and can be intersected by a portion of the blade, wherein the magnet includes a generally rectangular cross-section, a first dimension along a longitudinal central major axis generally parallel to the proximate surface of the casing, a second dimension along a second minor axis, and third dimension along a third minor axis, the first dimension being the greatest, and the magnet is magnetized substantially along one of the second minor axis and the third minor axis; and

a coil wound around the magnet so that a signal voltage can be produced on the coil in response to a variable magnetic field caused by eddy currents in the blade as the blade passes through the stationary magnetic field,

whereby the sensor is substantially monodirectional.

14. (original) The eddy current sensor as recited in claim 13, wherein the magnet material is selected from the group consisting of Neodymium-Iron-Boron, Samarium-Cobalt, and Aluminum-Nickel-Cobalt.

15-19 (canceled)

20. (previously amended) A method of measuring characteristics of moving turbine blades of a jet engine having a casing, through which blade characteristics are sensed, comprising the steps of:

generating a stationary magnetic field by using a substantially uniaxial permanent magnet, the magnet being mounted proximate and external to the casing and sized so that the stationary magnetic field penetrates through the casing and can be intersected by a portion of the

blade, the magnet includes a generally rectangular cross-section, a first dimension along a longitudinal central major axis generally parallel to the proximate surface of the casing, a second dimension along a second minor axis, and third dimension along a third minor axis, the first dimension being the greatest, and the magnet being magnetized substantially along one of the second minor axis and the third minor axis;

producing a signal voltage on a coil wound around the magnet in response to a variable magnetic field caused by eddy currents in the blade as the blade passes through the stationary magnetic field; and

measuring the signal voltage.

21- 28 (canceled)